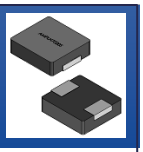
Molded Inductor (Carbonyl)



AMPLH7025S

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7.3 x 6.6 x 2.2 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Shielded construction
- Soft saturation
- Low DCR, High Efficiency
- Designed for switching frequencies between 100KHz-2MHz

Applications

- DC/DC Switching converters
- Power supplies for Notebooks, workstations, and Servers
- Low Profile applications
- High current, transient load applications

Electrical Specifications

Part Number	Inductance	Tolerance	DC Resistance		Saturation Current	Temperature Rise Current
	0.1MHz/1.0V		Max.	Typ.	Typ.	Typ.
Units	µH	%	mΩ		A	A
Symbol	L	M	DCR		Isat	Irms
AMPLH7025S-R20M	0.20	±20	1.9	1.6	41.0	25.0
AMPLH7025S-R33M	0.33	±20	2.4	2.0	33.0	21.0
AMPLH7025S-R47M	0.47	±20	4.2	3.6	27.0	19.0
AMPLH7025S-R68M	0.68	±20	4.6	4.0	23.0	17.0
AMPLH7025S-1R0M	1.00	±20	6.8	5.9	17.0	15.0
AMPLH7025S-1R5M	1.50	±20	10.1	8.7	15.0	13.0
AMPLH7025S-2R2M	2.20	±20	14.7	12.8	12.0	10.0
AMPLH7025S-3R3M	3.30	±20	27.6	24.0	9.0	8.0
AMPLH7025S-4R7M	4.70	±20	36.8	32.0	8.0	7.0
AMPLH7025S-5R6M	5.60	±20	40.2	35.0	7.5	6.5
AMPLH7025S-6R8M	6.80	±20	50.6	44.0	7.0	6.0
AMPLH7025S-8R2M	8.20	±20	53.0	46.0	6.0	5.5
AMPLH7025S-100M	10.00	±20	73.6	64.0	5.5	5.0

Test Conditions

Isat: DC current at which the inductance drops 30% from its initial value.

Irms: DC current that causes the temperature rise (ΔT, approximate 40˚C) from 25˚C ambient.

Operating Temperature: -40˚C ~ +125˚C (including self-temperature rise)

Storage Condition: -40˚C ~ +125˚C (on board), -10˚C ~ +40˚C (with packaging) and R.H. 85% max.

Operating Voltage: 50V (across inductor)

AMPLH7025S Series is RoHS Compliant and Pb free.

For saturation and temperature rise graphs, please visit Abracon | Power Inductor Performance Analyzer (PIPA)

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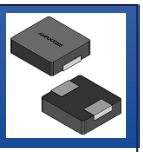

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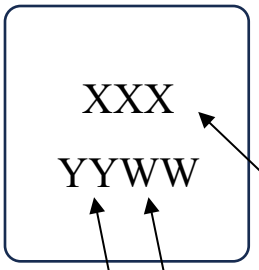
MSL Level = 1

Part Identification

AMPLH7025S - □□□

Inductance Code	Tolerance	Packaging
See Electrical Specification table	M = ± 20%	T: Tape and Reel (See Packaging) Blank: Bulk

Marking



Inductance Code

e.g. 2R2

W: Week: E.g. 05 for the 5th week of the year.

Y: Year: E.g. 24 for 2024

Marking Method = Ink Marking

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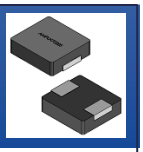

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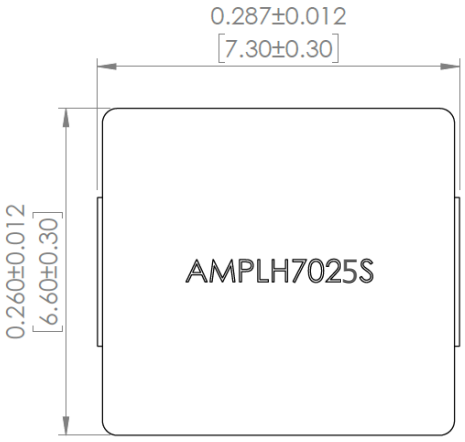
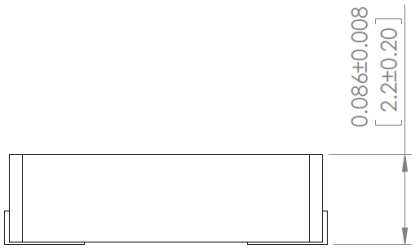
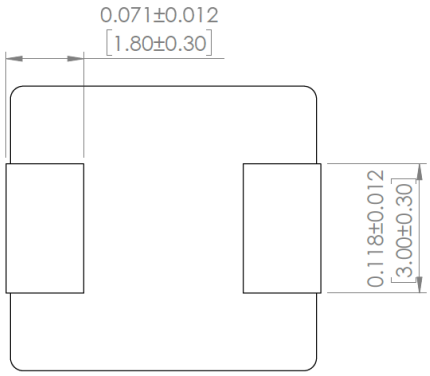
Mechanical Specifications



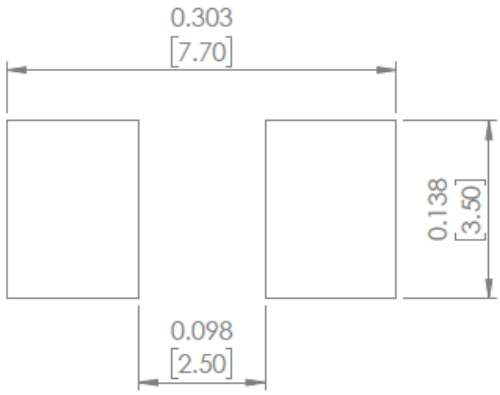
TOP VIEW



FRONT VIEW



BOTTOM VIEW



RECOMMENDED LAND PATTERN

Dimensions: Inches [mm]

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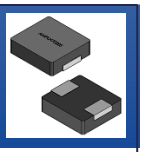

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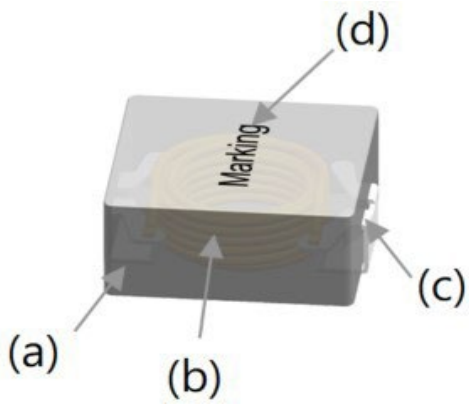
Materials



	Components	Material
a	Core	Alloy Powder
b	Wire	Polyester Wire
c	Electrode	Cu/Ni/Sn
d	Marking	Ink

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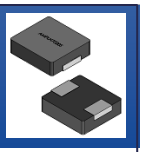

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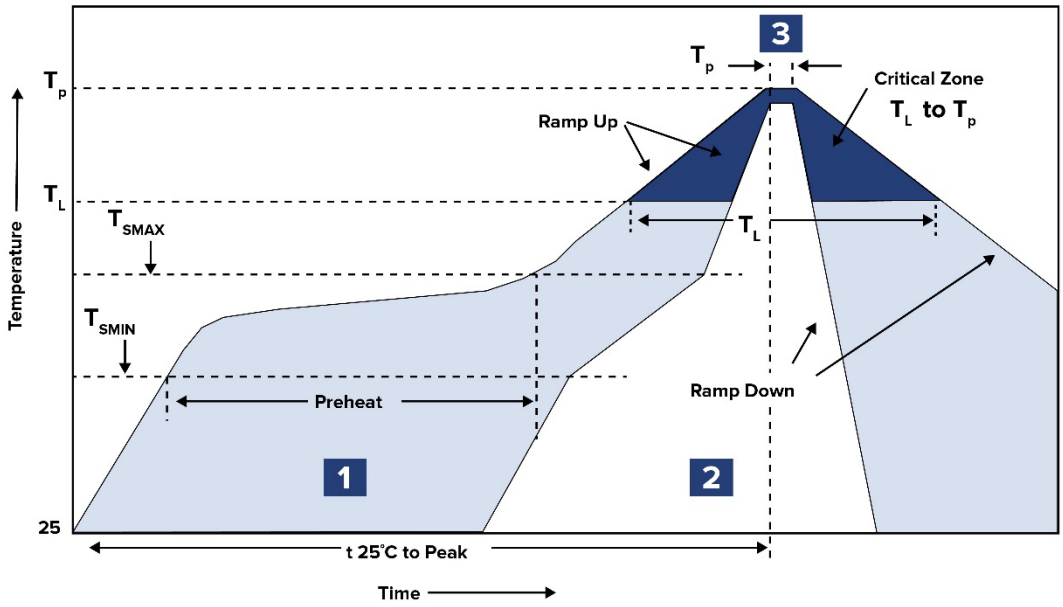
Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	T_{SMIN} ~ T_{SMAX} 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L ≥217°C	60 ~ 150 sec.
3	Peak heat	T_P 260°C	30 sec. MAX

Time of 25°C to peak temperature: 8 mins Max
Ramp up rate: 3°C/Second max.
Ramp down rate: 6°C/Second max.

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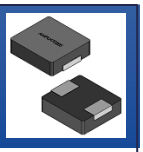

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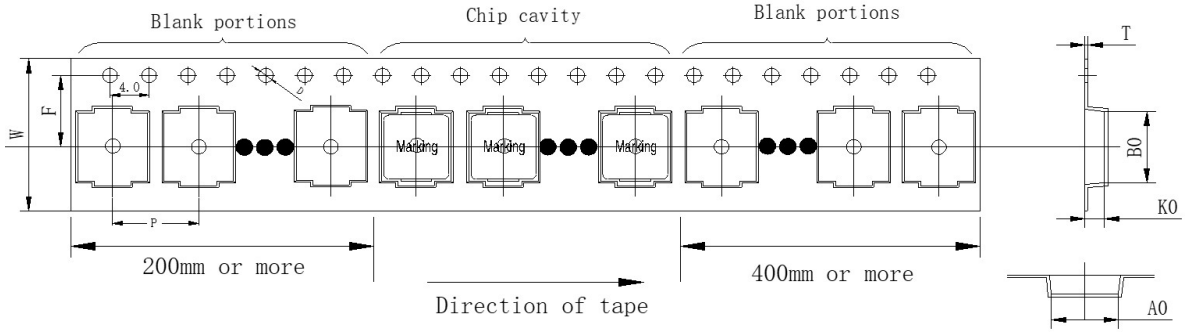
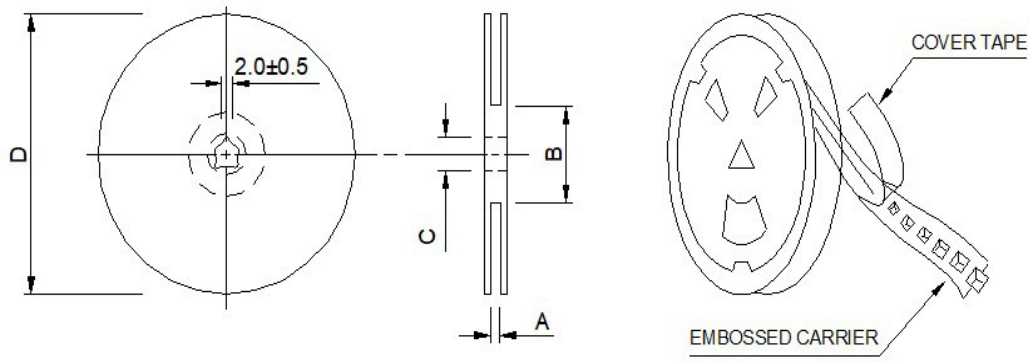
MSL Level = 1

Packaging

Tape & Reel: 1500 pcs/reel



A0	B0	W	F	P	D	K0	T
7.10 Ref	8.10 Ref	16.00±0.30	7.50±0.10	12.00±0.10	1.50±0.10	2.70 Ref	0.35±0.05



Type	A	B	C	D
13” x 16mm	16.4+2.0/-0.0	100.0±2.0	13.0+0.5/-0.2	330.0±0.3

Dimensions: mm

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